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**PETITION UNDER 37 CFR 1.53(e) IN RESPONSE TO NOTICE OF OMITTED ITEM(S)  
IN A NONPROVISIONAL APPLICATION**

First Named Inventor: Brian Moore  
Application No.: 09/854,905  
Filed : May 15, 2001  
Title : Wireless Radio Frequency Technique Design and Method For  
Testing of Integrated Circuits and Wafers  
Docket No. : 11157-23

Group Art Unit: 2829

Examiner: N/A

April 5, 2002

Attention: Initial Patent Examination Division  
Commissioner for Patents  
UNITED STATES PATENT AND TRADEMARK OFFICE  
Washington, D.C 20231

This petition is in response to the Notice of Omitted Item(s) In A Nonprovisional Application dated March 12, 2002. Accordingly, this petition is timely filed.

The U.S. Patent and Trademark Office contends that the Applicant did not submit page 20 of the application at the filing date.

Applicant submits that page 20 of the specification was in fact deposited in the USPTO with the original filing of the nonprovisional application papers on May 15, 2001. Applicant submits that the specification as filed is 44 pages long, including a title page, 33 pages of description, 9 pages of claims and a 1 page abstract. The return receipt postcard for this application itemized and properly identified the items that were filed. The return receipt postcard indicated that the specification is 44 pages long. Applicant provides photocopies of the return receipt postcards as evidence that the entire specification was deposited with the USPTO at the filing date of May 15, 2001. One of the postcards has the Office Date stamp by the Office of Initial Patent Examination (OIPE) upon filing the application on May 15, 2001. The second return receipt postcard was mailed by the USPTO to the agent for the Applicant and includes the serial number that was assigned to this application. Accordingly, the entire text of the application was filed with the USPTO on May 15, 2001.

APPLICANT HEREBY PETITIONS THAT THE NOTED OMITTED ITEM WAS IN FACT  
DEPOSITED IN THE U.S. PATENT AND TRADEMARK OFFICE WITH THE  
NONPROVISIONAL APPLICATION PAPERS.

04/09/2002 SHINASS1 00000129 09854905

01 FC:122

130.00 DP

Refund-Ref  
07/19/2002 AKELLEY

CHECK Refund

Adjustment date: 07/19/2002  
04/09/2002 SHINASS1 00000129 09854905  
01 FC:122

NOTE: A grantable petition requires the following items:

- (1) Petition fee.
- (2) The Notice of Omitted Item(s) In A Nonprovisional Application Form.
- (3) Evidence to support filing of omitted items.

1. The Petition Fee of \$130.00 (37 CFR 1.17(h)) is attached. #4292
2. The Notice of Omitted Item(s) In A Nonprovisional Application Form is attached.
3. The Withdrawal of Previously Sent Notice that accompanied the Notice of Omitted Items is attached.
4. Photocopies of the return receipt postcards are attached as evidence.
5. As the U.S. Patent and Trademark Office now appears to be missing page 20, the Applicant includes page 20 to complete the office's file upon grant of this petition.

April 5, 2002  
Date

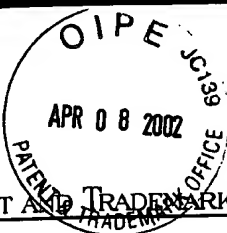
Telephone  
Number: (416) 364-7311

Stephen M. Beney  
Signature

Stephen M. Beney  
Registration No. 41,563  
Typed or Printed Name

Bereskin & Parr  
40 King Street West  
Toronto, Ontario  
M5H 3Y2  
Address

Enclosures: Notice of Omitted Items In A Nonprovisional Application  
Withdrawal of Previously Sent Notice  
Photocopies of the Return Receipt Postcards  
Fee Transmittal Form  
Fee Payment  
Page 20 of the application as originally filed



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
WASHINGTON, D.C. 20231  
www.uspto.gov

APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
09/854,905	05/15/2001	Brian Moore	11157-23

CONFIRMATION NO. 7601

FORMALITIES LETTER



\*OC000000007623533\*

Stephen M. Beney  
Bereskin & Parr  
40 King Street West  
Box 401  
Toronto, ON M5H 3Y2  
CANADA

Date Mailed: 03/12/2002

## NOTICE OF OMITTED ITEM(S) IN A NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

A filing date has been accorded to the above-identified nonprovisional application papers; however, the following item(s) appear to have been omitted from the application:

- Page(s) 20 of the specification (description and claims).

I. Should applicant contend that the above-noted omitted item(s) was in fact deposited in the U.S. Patent and Trademark Office (USPTO) with the nonprovisional application papers, a copy of this Notice and a petition (and \$130.00 petition fee (37 CFR 1.17(h))) with evidence of such deposit **must** be filed within **TWO MONTHS** of the date of this Notice. The petition fee will be refunded if it is determined that the item(s) was received by the USPTO.

II. Should applicant desire to supply the omitted item(s) and accept the date that such omitted item(s) was filed in the USPTO as the filing date of the above-identified application, a copy of this Notice, the omitted item(s) (with a supplemental oath or declaration in compliance with 37 CFR 1.63 and 1.64 referring to such items), and a petition under 37 CFR 1.182 (with the \$130.00 petition fee (37 CFR 1.17(h))) requesting the later filing date **must** be filed within **TWO MONTHS** of the date of this Notice.

III. The failure to file a petition (and petition fee) under the above options (I) or (II) within **TWO MONTHS** of the date of this Notice (37 CFR 1.181(f)) will be treated as a constructive acceptance by the applicant of the application as deposited in the USPTO. **THIS TWO MONTH PERIOD IS NOT EXTENDABLE UNDER 37 CFR 1.136(a) or (b).** In the absence of a timely filed petition in reply to this Notice, the application will maintain a filing date as of the date of deposit of the application papers in the USPTO, and original application papers (*i.e.*, the original disclosure of the invention) will include only those application papers present in the USPTO on the date of deposit.

In the event that applicant elects not to take action pursuant to options (I) or (II) above (thereby constructively electing option (III)), amendment of the specification to renumber the pages consecutively and cancel incomplete sentences caused by any omitted page(s), and/or amendment of the specification to cancel all references to any omitted drawing(s), relabel the drawing figures to be numbered consecutively (if necessary), and correct the references in the specification to the drawing figures to correspond with any relabelled drawing figures, is required. Any drawing changes should be accompanied by a copy of the drawing figures showing the proposed changes in red ink. Such amendment and/or correction to the drawing figures, if necessary, should be by way of preliminary amendment submitted prior to the first Office action to avoid delays in the prosecution of the application.

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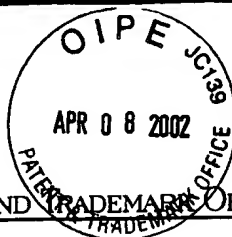
*A copy of this notice MUST be returned with the reply.*

A. Sahwe

Customer Service Center

Initial Patent Examination Division (703) 308-1202

PART 2 - COPY TO BE RETURNED WITH RESPONSE



## UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
WASHINGTON, D.C. 20231  
www.uspto.gov

APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
09/854,905	05/15/2001	Brian Moore	11157-23

CONFIRMATION NO. 7601

## WITHDRAWAL NOTICE



\*OC000000007623469\*

Stephen M. Beney  
Bereskin & Parr  
40 King Street West  
Box 401  
Toronto, ON M5H 3Y2  
CANADA

Date Mailed: 03/12/2002

## WITHDRAWAL OF PREVIOUSLY SENT NOTICE

The Notice mailed on 09/25/2001 was sent in error and is hereby withdrawn. A corrected Notice is enclosed. The time period for reply runs from the mail date of the corrected Notice. We apologize for any inconvenience this caused.

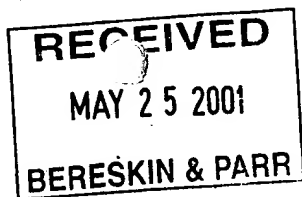
*A copy of this notice **MUST** be returned with the reply.*

*Asahne*

Customer Service Center

Initial Patent Examination Division (703) 308-1202

PART 1 - ATTORNEY/APPLICANT COPY



252

The date stamp on this card signifies receipt by the United States Patent & Trademark Office of the following documents related to:



In Re: Brian Moore

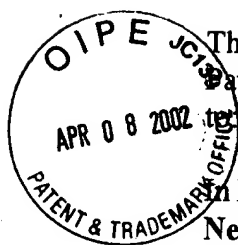
New Utility Patent Application Transmittal

Title: WIRELESS RADIO FREQUENCY TECHNIQUE DESIGN  
AND METHOD FOR TESTING OF INTERATED  
CIRCUITS AND WAFERS

Attorney Docket Number: 11157-23

1. Patent Application Cover Sheet
2. Initial Information Data Sheet
3. Title Cover Sheet
4. Specification (44 pages)
5. Drawings on 32 sheets
6. Return Postcard





The date stamp on this card signifies receipt by the United States Patent & Trademark Office of the following documents related

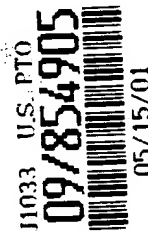
In Re: Brian Moore

New Utility Patent Application Transmittal

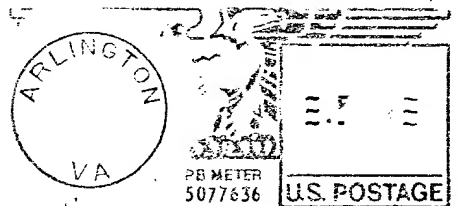
Title: WIRELESS RADIO FREQUENCY TECHNIQUE DESIGN  
AND METHOD FOR TESTING OF INTERATED  
CIRCUITS AND WAFERS

Attorney Docket Number: 11157-23

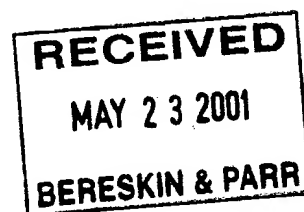
1. Patent Application Cover Sheet
2. Initial Information Data Sheet
3. Title Cover Sheet
4. Specification (44 pages)
5. Drawings on 32 sheets
6. Return Postcard



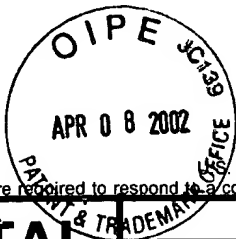
**AIRMAIL**



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Toronto, Ontario  
CANADA M5H 3Y2



00101/2403



PTO/SB/17 (11-01)

Approved for use through 10/31/2002. OMB 0651-0032  
Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

# FEE TRANSMITTAL for FY 2002

Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$)

130.00

**Complete if Known**

Application Number	09/854,905
Filing Date	May 15, 2001
First Named Inventor	MOORE, Brian
Examiner Name	
Group Art Unit	2829
Attorney Docket No.	11157-23

**METHOD OF PAYMENT (check all that apply)**☒ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None☐ Deposit Account:Deposit  
Account  
Number  
Deposit  
Account  
Name

022095

Bereskin &amp; Parr

The Commissioner is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☒ Credit any overpayments☒ Charge any additional fee(s) during the pendency of this application☐ Charge fee(s) indicated below, except for the filing fee  
to the above-identified deposit account.**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
101	740	201	370	Utility filing fee	
106	330	206	165	Design filing fee	
107	510	207	255	Plant filing fee	
108	740	208	370	Reissue filing fee	
114	160	214	80	Provisional filing fee	

SUBTOTAL (1) (\$)

0.00

**2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

		Extra Claims		Fee from below		Fee Paid
Total Claims	<input type="text"/> - 20 ** = <input type="text"/>	X	<input type="text"/>	=	<input type="text"/>	0.00
Independent Claims	<input type="text"/> - 3 ** = <input type="text"/>	X	<input type="text"/>	=	<input type="text"/>	0.00
Multiple Dependent				=	<input type="text"/>	

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
103	18	203	9	Claims in excess of 20	
102	84	202	42	Independent claims in excess of 3	
104	280	204	140	Multiple dependent claim, if not paid	
109	84	209	42	** Reissue independent claims over original patent	
110	18	210	9	** Reissue claims in excess of 20 and over original patent	

SUBTOTAL (2) (\$)

0.00

\*\*or number previously paid, if greater; For Reissues, see above

**FEE CALCULATION (continued)****3. ADDITIONAL FEES**

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
105	130	205	65	Surcharge - late filing fee or oath	
127	50	227	25	Surcharge - late provisional filing fee or cover sheet	
139	130	139	130	Non-English specification	
147	2,520	147	2,520	For filing a request for <i>ex parte</i> reexamination	
112	920*	112	920*	Requesting publication of SIR prior to Examiner action	
113	1,840*	113	1,840*	Requesting publication of SIR after Examiner action	
115	110	215	55	Extension for reply within first month	
116	400	216	200	Extension for reply within second month	
117	920	217	460	Extension for reply within third month	
118	1,440	218	720	Extension for reply within fourth month	
128	1,960	228	980	Extension for reply within fifth month	
119	320	219	160	Notice of Appeal	
120	320	220	160	Filing a brief in support of an appeal	
121	280	221	140	Request for oral hearing	
138	1,510	138	1,510	Petition to institute a public use proceeding	
140	110	240	55	Petition to revive - unavoidable	
141	1,280	241	640	Petition to revive - unintentional	
142	1,280	242	640	Utility issue fee (or reissue)	
143	460	243	230	Design issue fee	
144	620	244	310	Plant issue fee	130.00
122	130	122	130	Petitions to the Commissioner	
123	50	123	50	Processing fee under 37 CFR 1.17(q)	
126	180	126	180	Submission of Information Disclosure Stmt	
581	40	581	40	Recording each patent assignment per property (times number of properties)	
146	740	246	370	Filing a submission after final rejection (37 CFR § 1.129(a))	
149	740	249	370	For each additional invention to be examined (37 CFR § 1.129(b))	
179	740	279	370	Request for Continued Examination (RCE)	
169	900	169	900	Request for expedited examination of a design application	

Other fee (specify)

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$)

130.00

**SUBMITTED BY**

Name (Print/Type)	Stephen M. Bereskin
Signature	

Registration No. (Attorney/Agent)	41,563
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**Complete (if applicable)**

Telephone	(416) 364-7311
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Date	April 5, 2002
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**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



To accomplish parameter testing, one embodiment switches the sub-circuits into and out of the variable ring oscillator **62** based on the test state signals **S1, S2, S3 S4, S5, S6, S7, S8** and **S9** which are supplied by the sequencer **60**. Most of the sub-circuit that are switched into the variable ring oscillator **62** load the variable ring oscillator such that the sub-circuit will affect the frequency of oscillation of the variable ring oscillator **62**. Differences in the frequency of oscillation of the variable ring oscillator **62** will then allow for parameter measurement as will be shown below.

To illustrate the concept of using the frequency of oscillation of a ring oscillator to measure IC parameters, reference will now be made to Figure 17a which shows a ring oscillator **132** comprising 3 inverters **I8, I9** and **I10** and a variable load **134** which includes capacitors **CL1** and **CL2** and a transmission gate **136**. The capacitor **CL2** is switched into the ring oscillator **132** when the transmission gate **136** is enabled by a control signal **138**. When the transmission gate **136** is disabled, the load **134** on the ring oscillator **132** is dominated by the capacitor **CL1**. As previously discussed, if the ring oscillator **132** did not have the load **134**, and the load of each inverter in the ring oscillator **132** were similar, the ring oscillator **132** would oscillate at a frequency of  $1/(2*3*\tau_{inv})$ . However, if the load **134** on the second inverter **I9** in the ring oscillator **132** was made large compared to the load of the inverters **I8** and **I10**, then the delay of the ring oscillator **132** would be dominated by the delay associated with the inverter **I9**. Accordingly, the frequency of oscillation for the ring oscillator **132** would be proportional to the load **134** of the second inverter **I9** (the load of the inverters **I8** and **I10**, although not shown, includes the internal parasitic capacitances of the transistors used in the inverters and interconnect capacitances, i.e. a parasitic capacitive load, and a lumped resistance). In this case, the ring oscillator **132** would have a frequency of oscillation given by the following equation:

$$f_{osc} = 1/\tau \quad (1)$$

where  $\tau$  is a time constant associated with the load **134** of the second inverter **I9**. When the transmission gate **136** is disabled, the load **134** is the product of the capacitor **CL1**, a lumped resistance  $R_{lump}$  and a constant  $k$ . The value  $R_{lump}$  is the equivalent resistance seen at the output of the inverter **I9** and the

